

The Enduring Effects of Social Pressure: Tracking Campaign Experiments Over a Series of Elections

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Abstract Recent field experiments have demonstrated the powerful effect of social pressure messages on voter turnout. This research note considers the question of whether these interventions' effects persist over a series of subsequent elections. Tracking more than one million voters from six experimental studies, we find strong and statistically significant enduring effects one and sometimes two years after the initial communication.

Keywords Voter turnout • Social norms • Habit formation

Social pressure communications are designed to encourage adherence to social norms by reminding people of their obligation to abide by these norms and indicating that compliance will be monitored and perhaps disclosed to others. In the context of election campaigns, social pressure messages emphasize the importance of participating in elections, the fact that who votes is a matter of public record, and the possibility that one's compliance with the norm of voting could be disclosed to family, friends, or neighbors.

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The use of social pressure communications has been studied in a variety of contexts, such as recycling (Goldstein et al. 2008) and energy conservation (Ayres et al. 2009), but the most active area of applied research is voter mobilization. Since the publication of Gerber et al. (2008), the first study to document the powerful effects of social pressure messages on voter turnout, more than a dozen experiments have replicated and extended the main experimental result.

To summarize the literature briefly, social pressure messages are roughly an order of magnitude more influential than conventional partisan or nonpartisan appeals. Whereas the typical piece of direct mail increases turnout by one-half a percentage point or less, social pressure mail increases turnout by 3% to 8% points, depending on how much pressure is applied (Gerber et al. 2008, 2010b; Mann 2010; McConnell et al. 2010; Panagopoulos 2010). Effective mobilization tactics, such as door-to-door canvassing, become more so when voting in past elections is disclosed (Davenport and Tiffany 2010), but even tactics such as automated phone calls with recorded messages, which ordinarily have no effect on turnout, increase turnout by approximately 2% points when the recorded message discloses whether the recipient voted in prior elections (Gerber et al. 2010a).

How long-lasting are the effects of social pressure? If one communicates with voters shortly before an election, does one see increased turnout in subsequent elections? If so, at what rate do the effects decay? The study of enduring effects addresses two distinct theoretical concerns. The first concerns "social learning," or the process by which people internalize norms (Bandura 1977). By emphasizing the importance of political participation and informing voters that their compliance with social norms is being monitored, social pressure messages may leave a long-lasting imprint on voters. The second theoretical concern is habit formation. Even if voters were to forget the message they received, the mere fact that they participated in a given election might make them more likely to participate in future elections (Gerber et al. 2003; Plutzer 2002). Enduring effects of social pressure communication could be attributed to either mechanism, but the absence of enduring effects would call both theories into question.

In order to gauge the persistence of social pressure effects, we assembled results from six experimental studies. Our criteria for including these studies are as follows: (1) subjects were randomly assigned to receive social pressure messages encouraging voting in an upcoming election, (2) the group or campaign that communicated these messages had no further interaction with the subjects after the election had passed, and (3) using public records, one can ascertain subjects' participation in at least one subsequent election. Each of the subjects in the originally assigned experimental groups was tracked over time. If subsequent voter records showed that they voted, they were coded as voting; if voter records showed them not voting or if their names no longer appeared on the registration rolls, they were coded as abstaining. This coding scheme is designed to guard against the possibility that the experimental treatment changed the likelihood that a person remained registered. As we document in an on-line appendix, the basic pattern of results is unchanged if one excludes subjects whose names are dropped from subsequent voter rolls. The tables presented below show the voting rates in elections prior and subsequent to the experimental intervention. Statistically significant differences between treatment

and control condition are indicated with asterisks. Statistical significance is determined using regression analysis, with standard errors adjusted for clustered random assignment.

Table 1 tracks subjects from the Gerber et al. (2008) study, which deployed four different treatment mailings during the August 2006 primaries in Michigan. The August 2006 effects range from 1.8% points to 8.1% points; the strongest effects are associated with mailings that present the voting records of everyone in a household ("Self") and everyone on the block ("Neighbors"). Those receiving the Neighbors treatment continued to vote at significantly higher rates in the November 2006 general election, the January 2008 presidential primary, and the August 2008 primary. The Self group votes at elevated rates as well, but the effect is smaller and achieves statistical significance in two of these three elections. Interestingly, we see no enduring effects in the general election of 2008.

We find a similar pattern in Table 2, which tracks voters from the Gerber et al. (2010b) study conducted in 2007. In this study, subjects received a Civic Duty mailing and two versions of the Self mailing. The immediate effects on turnout in the November 2007 municipal elections ranged from 1.4% points (Civic Duty) to 4.9% points (Self mailing showing past voting in a low turnout election). Those receiving the Self mailings show increased turnout a few months later in the presidential primary elections. The effect borders significance in the August 2008 primaries but disappears altogether by the November presidential election.

One explanation for the lack of effect in November 2008 is that memories of the mailing fade over time. An alternative explanation is that interest in the historic presidential contest overwhelmed social pressure concerns. The robotic phone call experiment by Gerber et al. (2010b) hints at the latter explanation. The intervention

Table 1 Voter turnout in a series of elections before and after treatment, by 2006 experimental group, Gerber et al. (2008) study (percent turnout)

	Control	Civic duty	Hawthorne	Self	Neighbors
Aug 2000 ^a	25.2	25.4	25	25.1	25.1
Nov 2000 ^a	84.3	84.2	84.4	84	84.2
Aug 2002 ^a	38.9	38.9	39.4	39.2	38.7
Nov 2002 ^a	81.1	81.1	81.3	81.1	81.1
Aug 2004 ^a	40	39.9	40.3	40.2	40.7*
August 2006 ^b	29.7	31.5**	32.2**	34.5**	37.8**
Nov 2006	84.5	84.3	84.6	84.8	85.5**
Jan 2008	34.8	35.1	35.1	35.4*	36.0**
Aug 2008	31.7	31.5	32	32.5**	32.7**
Nov 2008	81.1	80.7	81	81	81.1
<i>N</i>	191,236	38,216	38,199	38,214	38,199

Note: Only registered voters who voted in November 2004 were selected for this experiment

^a Election prior to treatment

^b The treatment immediately preceded this election

** $p < .01$; * $p < .05$, one-tailed

Table 2 Voter turnout in a series of elections before and after treatment, by 2007 experimental group, Gerber (2010b) (percent turnout)

	Control	Civic duty	Shown 2005 vote	Shown 2006 vote
Aug 2004 ^a	25.4	24.9	24.6	25.0
Nov 2004 ^a	89.9	89.9	90.1	89.8
Aug 2006 ^a	28.2	28.3	27.7	27.6
Nov 2006 ^a	82.3	82.1	82.2	82.7
Nov 2007 ^b	27.7	29.1**	32.6**	32.2**
Jan 2008	32.8	33.0	34.7**	34.0**
Aug 2008	28.1	28.8	29.1**	28.6
Nov 2008	77.6	77.2	77.5	77.9
<i>N</i>	772,479	6,933	13,831	13,778

Note: Only registered voters who voted in November 2004 were selected for this experiment

^a Election prior to treatment

^b The treatment immediately preceded this election

** $p < .01$; * $p < .05$, one-tailed

Table 3 August and November 2008 voting rates among those contacted by treatment or placebo calls in August (percent)

	Treatment	Recycle
Aug 2008 ^a		
1-person household	21.5**	19.3
<i>N</i>	3,986	3,906
2-person household	24.5**	21.1
<i>N</i>	9,487	9,414
Nov 2008		
1-person household	88.4	87.6
<i>N</i>	3,986	3,906
2-person household	93.7	93.4
<i>N</i>	9,487	9,414

Note: Only registered voters who voted in November 2004 were selected for our sample ^a The treatment immediately preceded this election

** $p < .01$; * $p < .05$, one-tailed

occurred prior to the August 2008 primary election. Table 3 reports the results for those voters whose households were contacted by phone; the treatment group received encouragement to vote, while a control group was encouraged to recycle. The treatment call increased turnout by 2.2% points among one-voter households and by 3.4% points among two-voter households. Both types of households show small and statistically insignificant increases in turnout in November.

The first three studies suggest that effects of social pressure endure but do not affect the behavior of those who would ordinarily vote in presidential election. That conclusion, however, must be qualified by the Mann (2010) experiment, which distributed social pressure mailings prior to the November 2007 gubernatorial election. Subjects in the Mann study were stratified into two subgroups, based on their participation in previous elections. As Table 4 indicates, both groups showed significant increases in turnout when presented with different variants of the Self

Table 4 Voter turnout in a series of elections before and after treatment, by 2007 experimental group, Mann (2010) study (percent turnout)

	Voters Who failed to vote in both the 2006 primary and 2006 general					Voters with a 5-75% predicted probability of voting in the 2007 general election			
	Control	Self	Hawthorne	Self with help	Hawthorne with survey	Control	Self	Hawthorne	Hawthorne with survey
June 2000 ^a	1.8	1.5	1.7	1.9	1.8	2.1	1.8	1.8	2.0
Nov 2000 ^a	20.0	20.0	20.0	20.0	20.0	21.9	22.0	21.8	22.0
June 2002 ^a	5.1	5.1	5.2	5.5	5.6*	7.8	7.7	7.7	8.2*
Nov 2002 ^a	8.6	8.6	8.5	8.6	9.3*	11.4	11.4	11.4	12.0*
June 2003 ^a	1.0	1.0	.9	.9	1.0	1.3	1.4	1.2	1.3
Nov 2003 ^a	6.0	6.3*	6.4	6.6**	6.8**	8.1	8.2	8.4	8.6*
June 2004 ^a	1.0	1.0	1.0	1.0	1.1*	1.6	1.7	1.9*	1.9*
Nov 2004 ^a	26.8	27.0	27.0	27.0	27.8*	34.0	35.6	35.3	36.0*
June 2006 ^a	–	–	–	–	–	11.5	12.1*	11.3	11.7
Nov 2006 ^a	–	–	–	–	–	18.6	19.5*	18.7	19.1
June 2007 ^a	2.0	2.5**	2.2	2.0	2.0	4.7	5.5**	5.0	4.9
Nov 2007 ^b	6.8	8.9**	8.9**	8.7**	9.0**	13.2	16.3**	15.8**	15.7**
June 2008	10.6	11.7	11.4*	10.8	11.8**	16.6	17.7**	17.1	17.5**
Nov 2008	30.7	32.0**	32.3**	31.7*	32.3**	37.9	39.5**	39.2**	39.6**
<i>N</i>	19,561	13,842	13,689	17,609	13,740	25,037	17,731	17,735	17,676

^a Election prior to treatment^b The treatment immediately preceded this election** $p < .01$; * $p < .05$

mailing, with treatment effects ranging from 1.9% points to 3.1% points. When these voters are tracked over the course of the June 2008 primary and November 2008 general election, one finds significantly elevated voting rates. In the November 2008 election, for example, turnout rates in the treatment groups exceed that of the control group by between 1.0% and 1.7% points. In other words, approximately one-third to one-half of the effect from 2007 persists a year later, with no sign of decay over the course of 2008.

The results from the Panagopoulos (2010) experiments echo the results from the Mann study. Mailings were sent out prior to the November 2007 municipal elections telling people that their voting record would be publicized in a local newspaper, and large effects were detected in two of the three sites. The results are presented in Table 5. In Monticello, Iowa, the 4.5% point effect in 2007 translated into a 4.1% point effect in the November 2008 election. In Ely, Iowa, the 6.3% point effect in 2007 produced an insignificant 1.4% point effect in November 2008. No immediate or delayed effects were detected in Holland, Michigan. Overall, the results suggest that roughly half of the 2007 effect persisted in the November 2008 election.

The final social pressure experiment is Davenport and Tiffany (2010) study of door-to-door canvassing. Davenport’s study has three randomly assigned groups, a canvassing group that received their vote history, a canvassing group that did not receive any social pressure message, and a control group. The study’s small size means that the estimates are subject to a fair amount of uncertainty. Still, Table 6 shows that the gap between those assigned to the ‘canvass with vote history’ group and those assigned to the control group is 5.7% points in the 2007 municipal election and 5.6% points 3 months later in the presidential primary. No positive effects turn up, however, in either the September 2008 primary or the November 2008 general election.

Table 5 Voter turnout in a series of elections before and after treatment, by 2007 experimental group and site, Panagopoulos (2010) study (percent turnout)

	Ely, IA		Monticello, IA		Holland, MI	
	Control	Treatment	Control	Treatment	Control	Treatment
Nov 2000 ^a	57.2	60.2	63.5	62.0	47.0	45.7
Nov 2004 ^a	80.0	78.6	75.8	77.9	58.6	57.6
Nov 2007 ^b	15.6	21.9**	30.9	35.4*	24.4	25.2
June 2008	6.1	8.0	10.8	10.4	N/A	N/A
August 2008	N/A	N/A	N/A	N/A	11.1	11.2
Sept 2008	5.4	4.7	10.9	10.6	N/A	N/A
Nov 2008	44.7	46.1	67.9	72.0*	59.4	59.0
<i>N</i>	685	674	1470	653	13,620	2,298

N/A indicates not applicable

^a Election prior to treatment

^b The treatment immediately preceded this election

** $p < .01$; * $p < .05$, one-tailed

Table 6 Voter turnout in a series of elections after door-to-door canvassing treatment, by 2007 experimental group, Davenport (2010) study (percent turnout)

	Control	Canvassing without history	Canvassing with history
Nov 2007 ^a	9.6	13.7	15.3*
Feb 2008	26.6	30.2	32.2
Sept 2008	14.8	10.9	11.8
Nov 2008	55.3	48.8	54.9
<i>N</i>	271	285	255

In 2007, 34.7% of those in the "canvassing without history" were contacted by canvassers, as opposed to 37.6% of those in the "canvassing with history" group

^a The treatment immediately preceded this election

* $p < .05$, one-tailed

In sum, the six studies demonstrate that social pressure interventions have persistent effects. Just how long these effects last remains an open question, as rates of decay vary markedly from study to study. On one end of the spectrum are the Mann experiments, which show a high degree of persistence even through the November 2008 presidential election. The Panagopoulos studies also show a high degree of persistence, although this pattern achieves statistical significance in just one of the experimental sites. On the other end of the spectrum is the Gerber et al. (2010b) robotic phone call study, which failed to influence turnout in the November 2008 election, just 3 months after the initial intervention. The 2006 and 2007 mailing studies by Gerber et al. and the canvassing study by Davenport had significant effects on subsequent elections but not on turnout in the November 2008 presidential election.

What accounts for these patterns? Is it that some social pressure messages are more memorable than others? Researchers have yet to measure whether people recall these mailings or whether the social pressure messages affect attitudes, such as interest in politics or beliefs about the importance of voting. Does the decay in effect size reflect the erosion of voting habits in the wake of widespread voter abstention from low-salience primary and municipal elections? Researchers have yet to conduct social pressure experiments with an eye toward exploiting marked variations in electoral context. These and other extensions of the current research program lie on the horizon. The rapid growth and development of the social pressure literature will make it possible to study downstream effects on an ever-greater scale, and innovations in experimental design may one day make it possible not only to measure the rate of decay but to understand the basis for persistence in voting patterns.

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